

INDEX TO VOLUME VI.

- Aboriginal relics known as "Plummetts," notes on, 611.
- Abranchiate worms, respiration in, 244.
- Ab-sorption of solid particles, 316.
- Acceleration, theory of, 307.
- Acer nigrum* with stipules, 767.
- Aegithus (brevirostris) var. Brewsterii* at Waltham, Mass., 433.
- Agassiz Institute, 783.
- Alaska, hydrography and natural history of, 124.
- Albinism, 173.
- Albino deer, 773.
- Alea impennis*, 368.
- Alpine flora of Colorado, 734.
- Amblyopsis spelaeus, 11, 403.
- America, faunal provinces of, 689.
- American Association for the Advancement of Science, 318, 378, 446, 509, 715. President's Address, 577.
- butterflies, revision of, 354.
- Entomologist, 39.
- Zygonidae, etc., work on, 191.
- Ammocetes, 6.
- Amphioxus, 19.
- Amphipleura pellucida as a test object for high-powers, 193.
- Anableps, eye of, 7.
- Anacharis, 297.
- Anaesthetic school, 431.
- Anguilla, species of, 449.
- Animals, effects of extraordinary seasons on the distribution of, 671.
- Animals of the Wyandotte and Mammoth Caves, list of, 406.
- Anopthalmus, 413.
- eremita, 421.
- tenais, 420.
- Anthropological Institute of N. Y., 103.
- Antiquity of man in America, 776.
- Aphredoderus sayanus, 12.
- Aqueous phenomena of the prairies, 133.
- Aquidneck Island, geology of, 518, 611, 751.
- Arachnactis, young of Edwardsia, 779.
- Areuthobium minutum, 167.
- original locality of the new species of, 404.
- Archaeological chronology, 118.
- Asplenium filix femina, new American variety of, 108.
- Azores, flora and fauna of, 176.
- Balanoptera musculus, description of, 473.
- Balanoglossus, young stage of, 636.
- Balanophyllia elegans, 732.
- Bal-am. mounting in, 707.
- Baltimore Oriole, 721.
- Bark Lice, 51.
- Bas-aris astuta in Ohio, 393.
- geographical distribution of, 364.
- Bathmodon radicans, 251.
- Bee Martin, 769.
- Bimocular Microscope, 322.
- Birds breeding in Cat-kill Mountains, 47.
- carpus and tarsus of, 631.
- Birds' eggs, instructions for preparing, 281.
- Birds, fossil in New Zealand, 312.
- in Mauritius, 624.
- new from Gallapagos, 38.
- new in Illinois, 430.
- new to Massachusetts, 306.
- of Colorado, 342.
- Kansas, 263, 359, 765.
- India, 460.
- N. A., geographical variation of, 559.
- the Great Salt Lake Valley, 394.
- the Tres Marias and Socorro Islands, 681.
- Black Bear, food of, 493.
- Blind Crawfish, 410, 494.
- fish, 409.
- distribution of, 29.
- eyes of, 18.
- first mentioned, 10.
- parasite on, 29.
- sensitive papillae of, 17.
- young of, 116.
- fishes of Mammoth Cave, 6.
- Siluridae, 7.
- Blood-corpuscles, 121, 317, 569.
- comparative size of, 243.
- variations in size of, 262.
- Blood-dises, size of, 243.
- Bonasa Jobii, 172, 309.
- Boomerang, 701.
- Botanical notes, 487.
- works, new, 636.
- Botany for young people, 475.
- forty years ago, 485.
- Boulders in coal, 439.
- Bracon letifer, 539.
- Branchiostoma, eye of, 6.
- Brass, how to blacken, 706.
- Breathing pores of leaves, 129.
- British Association for Advancement of Science, 712.
- Bud scales, office of, 685.
- Buffalo, former range of, 79.
- Butterflies, embryonic larva of, 169.
- of Iowa, 116.
- new catalogue of, 160.
- Scudder's revision of, 354.
- Butterfly, curious history of, 513.
- new fossil, 179.
- notes, 115.
- Cæcidotea microcephala, 411, 419.
- Calculi from the stomach of a horse, 552.
- California, geology of, 117.
- Californian Trivia, 732.
- Calypso, 429.
- Cambarus pellucidus, 494.
- Canada, fossil plants of, 99.
- Cancerous deposits, origin of, 501.
- Capillary circulation, mode of observing, 239.
- Carboniferous reptiles of Ohio, 46.
- Carpenter-bee, 721.
- Cat-kill Mountains, birds of, 47.
- Cauloxenus stygius, 411, 420.
- Cave in Berks Co., Penn., 238.

- Cemiostoma, notes on, 489.
 cofcellum, 332.
 Centipedes of Wyandotte Cave, 411.
 Central Park Museum, 251.
 Centronyx Bairdii, 637.
 Cetaceans, a new work on, 782.
 Chelifer and Phalangium, embryology of, 767.
 Chicago Academy of Sciences, 127.
 Chologaster Agassizii, 23.
 cornutus, 21.
 Classification, absence of eyes in, 691.
 Coal of Wyoming, geological age of, 669.
 beds in Panama, 53.
 measures, land shells from, 636.
 Coffee-leaf Miner, 332, 596.
 Coleoptera, Californian, 783.
 Colorado, alpine flora of, 734.
 mountains of, 65.
 birds, 342.
 potato beetle, 234, 334.
 Compositae, geographical distribution of, 351.
 Corals, 674.
 deep sea, 295.
 Corpuscles, passage of, through the blood-vessels, 69.
 Couch's Flycatcher, occurrence of, in the United States, 493.
 Cricket of the Wyandotte Cave, 414.
 Crinoids, affinities of, 305.
 Crosby, T. R., death of, 313.
 Crystalline forms in glass, 569.
 Crystallization of metals by electricity, 188.
 Cuckoo, young, habits of, 398.
 Curtiss, M. A., notice of death of, 449.
 Cynonys Ludovicianus, 46.

 Dina, honor conferred on, 252.
 Danaus Archippus, duration of life of, 237.
 Darwinism and histology, 187.
 Deep sea corals, 295.
 dredgings, 1.
 explorations, 58.
 life, 373.
 Deer, Albino, 773.
 Department of agriculture, dismissal of the late botanist of, 39.
 Desmids, 435.
 Diamond points, grinding of, 183.
 Diatom hoax, 121.
 Diatomaceae, 318.
 Diatoms, cleaning, 188.
 structure of, 500.
 study of, 441.
 vegetable nature of, 684.
 Double flowers, 427, 429.
 Dragon Flies, early stages of, 230.
 Dredgings, deep sea, 1.
 in the Gulf of St. Lawrence, 174.
 Dry rot, 782.
 Echinorhynchus gigas, 450.
 Eel, new entozoon from, 445.
 species of, 449.
 Eels in paste, 375.
 Eggs, partial development of, without fertilization, 176.
 Elodea, 297.
 English sparrows, 236.
 Entomology, economical, 435.
 practical, 383.
 Entozoon from the eel, 449.
 Erichomaster flavescens, 415, 420.
 Ethostomoids, habits, etc., of, 109.
 Ethnography of the shores of Behring Sea, 230.
 Eulophus cemiostomatis, 598.

 Evolution, 246.
 of life, 760.
 Exogens and endogens, 318.
 Eyes, absence of, in classification, 691.

 Face-urns, occurrence of, in Brazil, 607.
 Faunal provinces of America, 689.
 Fellas of the Northern United States, 385.
 Field mouse from Texas, 772.
 Filaria anulingae, 590.
 Fish, venomous, 451.
 Fish-beds of Osino, Nevada, 775.
 Fishes as surgeons, 48.
 fossil from the Cretaceous strata of Kansas, 249.
 how to collect them, etc., 113.
 peculiar coloration in, 237, 637.
 respiration of, 235.
 Flathead Indians, 179.
 Flax and hemp, fibres of, 187.
 Flies and contagious diseases, 634.
 Flower, double, 239.
 Flowers, Alpine, 683.
 Flora and fauna of the Azores, 176.
 Fossil plants of Canada, 99.
 Fossils, artificial, 376.
 Fossils, new from the West, 495.
 French Association for Advancement of Science, 712.
 Fuchsia, 167.
 Fungi, alternations of generations in, 187.
 coloring matter of, 341.
 in drinking water, 781.
 new, 443.

 Gall-louse of the grape, 532.
 Genera Plantarum, 639.
 Generation, spontaneous, 570.
 Geology of Aquidneck Island, 518, 611, 751.
 Germs, vitality of, at high temperature, 243.
 Gibbous bladderwort, late flowering of, 108.
 Glacial action in Fuegia and Patagonia, 696.
 phenomenon, 372.
 Glaciers in the Rocky Mountains, 310.
 origin of, 117.
 Glaucidium ferrugineum, new to United States, 370.
 Glycerine in microscopy, 242.
 Gold-finches, 50.
 Grape-leaf gall-louse, 532.
 Grape-vines, cause of deterioration of, etc., 532, 622.
 of the United States, 539.
 Gray, G. R., notice of death of, 446.
 Gray and Torrey's Peaks.
 Great Auk, 308.
 Grevillea, 636.
 Gronias nigralabris, 7.
 Gurno, origin of, 375.
 Gulf of St. Lawrence, dredgings in, 174.

 Harporhynchus, nest, eggs and breeding habits of, 370.
 Hassler Expedition, 63, 319, 382, 568, 575.
 Helenium tenuifolium, 45.
 Helminthophaga Luciae, nest and eggs of, 493.
 Hemirhamphus of Carolina, 399.
 (Richard ?), 49.
 Herborizing, hints on, 257.
 Heteropygia, 12.
 Histology, practical, 242.
 Holbrook, J. E., notice of, 189.
 Hybridization, experiments on, 429.
 Hybrids, 53.
 Hydrodictyon, development of, 245.
 Hypsælae, 12.

- Icterus Baltimore, note of, 234.
 spurius, 49.
 Immersion illumination, 528.
 Impatiens, structure of closed flowers of, 169.
 India, familiar birds of, 490.
 Indian implements of New Jersey, 144.
 relic, 696.
 Indians, Blackfeet, worship of, 183.
 Flathead, 179.
 of New Jersey, 144.
 Infusoria, new group of, 123.
 Infusorial life, 374.
 Insects, centre of gravity in, 396.
 circulation in, 178.
 fossil from Rocky Mountains, 292.
 mimicry in the colors of, 388.
 noxious and beneficial of Missouri, 292.
 origin of, 174.
 primitive forms of, 191.
 Irrigation and flora of the Plains, 76.
 Jaculus Hudsonius, 339.
 Jumping Mouse, hibernation of, 330.
 Juniperus occidentalis, 428.
 Kansas, birds of, 263, 359, 765.
 Kansas birds, list of, 482.
 King-crab, affinities of, 191, 235.
 Kingbird, 769.
 Kolopsis Anguilla, 451.
 Lake Michigan, marine crustacea in, 773.
 Lake Village, 313.
 Lampreys, young of, 6.
 Land shells from the coal measures, 696.
 Leaves, breathing pores of, 124.
 Lectures with aid of microscope, 783.
 Leeches, American, 238.
 Lemna polyrrhiza, 636.
 Lens, the, 231.
 Lenses, angular aperture of, 59.
 power of, 119.
 Lepidoptera, parthenogenesis among, 368.
 Lepidopterous scales, 186.
 Lepus aquaticus, 771.
 Leucocytes, 317, 569.
 Liber, curious varieties of, 185.
 Little Auk, 49.
 Limulus polyphemus, 235.
 Living-tone, 511.
 Logwood-staining fluid, 781.
 Loxolophodon semicinctus, 251.
 Lucifuga dentatus, 9.
 subterranean, 9.
 Lyon, S. S., notice of death of, 565.
 Magnifying power, method of examining, 137.
 Mammoth Cave, animals of, 551.
 blind fishes of, 6.
 description of new species from, 421.
 Man, antiquity of, in America, 776.
 antiquity of, in France, 702.
 fossil, in France, 373.
 past, present and future, 680.
 Marine crustacea from Lake Michigan, 773.
 zoology, laboratory for, 52.
 Marmot, singing Maryland, 395.
 Massachusetts, topographical atlas of, 163.
 Mastodon of Chautauqua, 178.
 Mechanism, 173, 310.
 Melanura fimi, 14.
 Mergulus alle L., 49.
 Metalophodon, armed, 774.
 Miasm, nature of, 374.
 Micro-chemistry, gases and vapors in, 184.
 Microlepidoptera, 432.
 directions for collecting, 275.
 Micro-pantograph, 779.
 Microphotography, 184.
 Microscope, angular aperture, 315.
 angular aperture, measurement of, 442.
 angular aperture of the eye, 639.
 angular aperture of objectives, 564.
 bichromatic vision, 499.
 binocular, double erecting, 639.
 binocular, a new erecting arrangement especially designed for use with, 39.
 cells for mounting objects, 497.
 erector, 62.
 improved apparatus for drawing with, 62.
 in the lecture room, 314.
 lectures on, 783.
 lenses, dry or immersion, 563.
 life slide for, 765.
 light corrector, Collins', 442.
 Maltwood Finder for, 245.
 misnaming of objectives, 502.
 new erecting arrangement, 240.
 new erecting prism, 439.
 nomenclature of objectives, 504.
 objectives, advancing definition of, 777.
 single front, 500.
 oblique illumination, 241.
 opaque illumination under high powers, 441.
 paraboloid as an immersion instrument, 498.
 photo-mechanical printing, 778.
 resolution of Nobe's band, 777.
 spring clips, new arrangement of, 499.
 Stephenson's binocular, 441.
 submersion, 779.
 Microscopes, students', 321.
 Microscopic objects, classification of, 703.
 world, views of, 352.
 Microscopical manipulations, 187.
 objectives and oculars, uniformity of nomenclature in regard to, 136.
 structure of the wax or bloom of plants, 188.
 Microscopy at the American Medical Association, 500.
 Micro-spectroscope, 62.
 Milvulus forficatus, 367.
 Mimicry, 233.
 in the colors of insects, 388.
 Minute organisms, structure of, 123.
 Monads, 286.
 Monkeys, intelligence in, 371.
 Monochromatic sunlight, 706.
 as an aid to high-power definition, 454.
 Moosewood fibre, 487.
 Moths of North America, illustrations of, 762.
 Mound-builders, peculiarities in the crania of, 738.
 Mountains of Colorado, 65.

- Mounting tissues in balsam, 781.
dammar varnish, 781.
- Mud-fish of Mammoth Cave, 13.
- Muledeer, spike-horn, 692.
- Multiplying species, 316.
- Myriopods, embryology of, 768.
- Myxine, eye of, 6.
- Naples, zoological station at, 686.
- Nardosmia palmata, 233.
- Natural History in Harvard University, 378.
lectures to teachers, 64.
of Fort Macon, 546.
of the Valley of Quito, 650.
- Nerves, distribution and action of, 565.
- New England glacier, origin of, 117.
- New Jersey, Stone Age in, 144, 199.
- Indians, 144.
- New York Central Park Museum, 639.
- Northern Shrike, 236.
- Norwegian zoology, 37.
- Nyctale, characters of, 284.
- Oaks of the Rocky Mountains, 427.
- Obione Suckleyana from Colorado, 487.
- Object teaching in microscopy, 243.
- Objectives, nomenclature of, 376.
- Octopus, 772.
- Oersted, Andreas S., notice of death of, 782.
- Ohio, geological survey of, 289.
- Oil-bearing Region of the Punjab, 246.
- Opossum, habits of, 555.
- Optical experiment, 709.
- Orea, habits of, 474.
- Orconectes inermis, 410, 419, 495.
pellucidus, 419.
- Oregon, collection of plants from, 167.
- Organic physics, 247, 251.
vigor and sex, relation between, 747.
- Organisms in Croton water, 565.
Chicago hydrant water, 443.
- Origin of species, 307.
- Oriole, orchard, in South Carolina, 49.
- Ornithological Catalogue of Boston Natural History Society, 472, 545.
notes from the West, 263, 342, 394.
register, 360.
works, 478.
Thesaurus, 549.
- Ornithology, two late papers on, 165.
- Ornithosaurians, 251.
- Ornithotomy, 631.
- Ostracodes, recent British, 38.
- Owl, American White-fronted, relationship of, 283.
- Oxyceiri Americanum, 166.
- Ozone, formation of, by flowers, 428.
- Paraffin lumps, camphor in, 706.
- Parasite of blind fish, 29.
- Parasitic plant of the mistletoe family, 166.
- Parthenogenesis, 229.
- Passerculus, new species of, from Eastern Massachusetts, 637.
princeps, 637.
- Peabody Academy of Science, report of, 764.
- Penguins in the Museum of the Boston Society of Natural History, catalogue of, 472, 545.
- Perognathus fasciatus, 369.
- Perry, J. B., death of, 710.
- Petroleum, early knowledge of, 638.
- Petromyzon, eye of, 6.
- Phalanguim and Chelifer, embryology of, 767.
- Pine, gray, classification of, 681.
- Phosphate beds of South Carolina, 55.
- Photographic micrometer and goniometer, 120.
- Photographing in black-ground illumination, 188.
- Photo-mechanical printing, 562.
- Photo-micrographs, 318.
- Phrixis longipes, 422.
- Plains, irrigation and flora of, 76.
- Plant-crystals, 244.
- driers, 107.
- Plants, acclimatization of, 551.
effects of extraordinary seasons on the distribution of, 671.
law of angular divergence in, 682.
mimicry in, 233.
rare, new stations of, 362.
- Plesiosaurus, food of, 439.
- Plummet-, 641.
- Podura scales, 443.
structure of, 782.
- Pocilia, 561.
- Polar Region, recent explorations of, 570.
- Polarization of light, 638.
- Pollen, exuberance of, 426.
- Polype, fresh water, 707.
- Polyzoa, fresh water, preservation of, 188.
- Pond life, 265.
- Potatoes above ground, 45.
- Prairie Dog, 46.
- Prairies, aqueous phenomena of, 133.
- Prizes offered by the Royal Danish Society, 506.
- Proboscidiens of the American eocene, 773.
- Protoplasmic life, 63.
- Punjab Oil Region, geology of, 250.
- Pure water, 124.
- Pythonomorpha of the cretaceous of Kansas, 246.
- Quedius spelæus, 421.
- Quercus, var. Gunnisonii, 427.
- Quito, Natural History of the Valley of, 650.
- Railway dust, 124.
- Rana pipiens, note of, 234.
- Raphides, 244.
- Rat, gregarious, of Texas, 487.
pouched, 369.
- Rattlesnake, music of, 310.
rattle of, 490, 693.
use of the rattle of, 240.
and natural selection, 32.
- Reithrodon Carolinensis, 772.
- Reptile, new fossil from Kansas, 247.
- Reptiles from the carboniferous of Ohio, 43.
vitality of, 491.
- Respiration in abranchiate worms, 244.
- Rhizopods, conjugation in, 188.
- Robin, Albino, 47.
instinct or reason in, 52.
- Rocky Mountains, climate of, 70.
fossil insects of, 665.
geology of, 68.
glaciers in, 316.
peaks of, 769.
- Salmon, propagation of, 170.
- Salmonidae, naturalization of, 308.
- Salt Lake crustacean, 771.
Valley, birds of, 394.
- Scalping in India, 118.
- Scientific record, Harpers', 471.
- Scissor-tail Flycatcher in New Jersey, 367.

- Seasons, effects of, on the distribution of animals and plants, 671.
 Seaweed new to our coast, 767.
 Seeds as projectiles, 685.
 dispersion of, by the wind, 231.
 and pollens, superabundance of, 104.
 Sensitive plant, influence of green light on, 108.
 Sequoia and its history, 577.
 Serpents, warmed by a lizard, 168.
 Setophaga picta, occurrence of, in Arizona, 436.
 Shell heaps and mounds, 253.
 Shells, fungous growth in, 776.
 Sigmodon Berlandierii, 487.
 Siluridae, eyes of, 7.
 Silver, arborescent, 375.
 Singing Mice, 369.
 Smithsonian exchanges, 190.
 Snake, curious habits of, 309.
 vibration of the tail of, 304.
 Snapping Turtle, embryo of, 305.
 Soap, bone dust in, 707.
 South America, zoological barriers of, 690.
 Spiders of the Wyandotte Cave, 414.
 flying, 168.
 Spike-horn Muledeer, 434, 692.
 Spirostrephon cavernarum, 414.
 Sponges, reproduction of, 707.
 spicules of, 709.
 Spores, dispersion of, 168.
 Staining and cutting leaves, 187.
 Sterna Forsterii, 638.
 Stimpson, Wm., in memoriam, 505.
 notice of the death of, 445.
 Stomata of leaves, 129.
 Stone Age in New Jersey, 144, 199.
 Students' Microscopes, 321, 323, 326.
 Sturgeon, reproduction of, 175.
 Stygiola, 9.
 dentatus, 10.
 Stygobromas vitreus, 413, 422.
 Sunlight, monochromatic, 706.
 Swamp Rabbit, 771.
 Swiss Association of Naturalists, 712.
 Synoplotherium, 695.
 Taconic, true use of the term, 197.
 Tapirus pinchaque, skeleton of, 256.
 Tea and coffee, adulteration of, 61.
 Temperature, change of, in water containing recently fertilized shad eggs, 492.
 Testudinata, new fossil, 251.
 Texas field mouse, 772.
 Thalasseus Havelii, 638.
 Thread Worm, found in the brain of the snake bird, 560.
 Tissues, cutting and staining, 61.
 preservation and preparation of, 315.
 Tooth, nerve of, 501.
 Tornaria, the young stage of Balanoglossus, 636.
 Torrey and Gray's Peaks, 709.
 Trees, size of, 662.
 and rain, 766.
 Trivia Californica, 732.
 Europaea, 733.
 Tropic Birds, habits of, 557.
 Trout and Salmon, activity of, 369.
 Tulip trees destroyed by Bark Lice, 51.
 Typhlichthys subterraneus, 13.
 Tyrrannus melancholicus, 493.
 Umbla, 14.
 Undulina ranarum, 123.
 Ungulates, new genus of, 438.
 Urns, ancient, in Brazil, 607.
 Utricularia gibba, 108.
 Uvella, 286.
 Vegetable and animal life, development of, 317.
 parasites as causes of disease, 422.
 Vegetation, eruption of Vesuvius, effect on, 551.
 of the Wabash Valley, 658, 724.
 and Potassa, 249.
 Vitality as affected by temperature, 187.
 and sex, 692.
 Vitis, species of, in the United States, 539.
 Viviparous minnows, 561.
 Wabash Valley, notes on the vegetation of, 658, 724.
 Walker Prize for 1873, 447.
 Wheel Animalcules, multiplication of, 708.
 Wyandotte Cave, description of new species from, 419.
 life in, 30.
 and its fauna, 406.
 Wyoming Coal, 669.
 Yucca, fertilization of by a moth, 765.
 Zonites cellarius, new locality for, 494.
 Zoological nomenclature, 436.